



The Hybrid Vehicle and Alternative Fuel Report

January 30, 2017

The fine print: This report is a summary of articles appearing in popular, business, and technical media referring to the impact of fuel costs and fuel efficiency on vehicle technology, development, and markets. At the end of the report is a list of all articles summarized, with hyperlinks to internet sources where available. Some articles may require free registration or paid subscriptions to access. **The Hybrid Vehicle and Alternative Fuel Report (ISSN: 1946-1011)** is compiled, written, and edited by Thomas L. R. Smith, Ph. D. (hereinafter referred to as "The Editor"), Economic Analysis Branch of the Budget and Financial Analysis Division, Washington State Department of Transportation. Contact **The Hybrid Vehicle and Alternative Fuel Report's** editor at smithtm@wsdot.wa.gov or (360) 705-7941. Contributions of news items, original articles, cookies, and positive comments about **The Report** are welcome.

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HYBRIDS

Ford and London will test 20 plug-in hybrid delivery vans as part of a £4.7 million (\$5.73 million) grant from the UK government, the [Independent](#) (Morales, January 20, 2017) says. These vans are tests intended to see if they are suitable for tradesmen. Part of the test will see if Ford has the all-electric range right before the vans go into mass production in 2019.

In Colorado, hybrid car owners are failing emissions testing because of the check engine light and bad batteries, [Denver7](#) (Luby & Freeman, January 20, 2017) says. Even though the hybrids' emission levels are well within the State's guidelines, the fact that the check engine light is on fails the test. A bad battery code, even when the car's emissions levels are good also fail the test.

UK Carline, a car rental and leasing company in the United Kingdom, has 10 new Toyota C-HR hybrids in its own company fleet, [Fleet News](#) (January 24, 2017) notes. The hybrids are replacing diesel cars. The C-HR, a compact SUV, is not available in the U. S. yet, but will replace the Matrix later this year.

Arriva, a bus operator in the United Kingdom added 174 Volvo double-decker hybrid buses, [Transport Engineer](#) (Cook, January 24, 2017) engages. The buses reduce emissions by 39% compared to the diesel buses they replace. Arriva has operated a fleet of 44 hybrids since 2013.

Chrysler's new Pacifica plug-in hybrid minivan produces 31% less greenhouse gas than it's gas-powered predecessor, [Fiat Chrysler](#) (January 10, 2017) said in a press release. Put in perspective, the savings in greenhouse gas is about the amount produced by 22 American households, 14 trips by airplane from Detroit to LA, or driving a car 50,000 miles.

Euopharm, a Romanian pharmaceutical distribution company just spent €1 million (\$1.4 million) on hybrid cars [SeeNews](#) (Banila, January 26, 2017) says. The

company has a goal of converting its entire fleet to hybrids and will replace 80 gas-burners with the hybrid vehicles.

ELECTRIC VEHICLES

Las Vegas tested a fully-electric driverless shuttle on Freemont street for about two weeks, the [Las Vegas Sun](#) (Granger, January 11, 2017) shines. The bus is the product of the French company Navya. Twelve passengers can ride the shuttle from Las Vegas Boulevard to Eighth Street on Freemont. The shuttle ran from 10 a.m. to 6 p.m. Some are betting that driverless shuttles will be officially running on the streets of Las Vega at the end of this summer after some changes are made. The service costs \$10,000 per month, but officials say most of the cost will be covered by advertising.

[Irizar E-Mobility](#) (December 20, 2016) a Basque company, will provide 18 electric buses to the transit authority responsible for France's Basque-Adour Coast, the company announced in a press release. In addition to the buses, the deal includes fast chargers at the end of the line stations and slower chargers at depots. The authority will build two bus-only lanes for the electric buses. The bus lanes should open in April 2019.

Businesses in Croydon and Sutton, boroughs of London, will be able to borrow electric vans and trucks from Transport for London, the [Croydon Advertiser](#) (January 21, 2017) advertises. While there are few details about the program, it is one of six initiatives the Mayor of London¹ is taking to reduce air pollution in Greater London. Another initiative is a hydrogen-diesel van that will be used at Heathrow Airport.

In Iran, President Hassan Rouhani tested an all-electric Yooz, that country's [Financial Tribune](#) (January 22, 2017) tells. The Yooz, built by the Iran's Parax Company, is a two-seater and can go 200 kilometers (124 miles) on a two-hour charge. The car is not for sale at the moment, but it appears the Iranian government is promoting electric and alternative fuel vehicles to reduce air pollution in the country's capital.

Tesla just released a new version of its Model S, the 100D, that will get 335 miles on a charge, [Fortune](#) (Morris, January 23, 2017) finds. The car, which costs a mere \$92,500 has the longest range of any electric vehicle available in the consumer market. Tesla also released a new version of the Model X that gets 295 miles.

If you ordered your Tesla after January 15, 2017, you're going to have to start paying to charge at Tesla Superstations ([The Tesla Team](#), January 12, 2017) if you use more than 400 kilowatt-hours (kWh) of electricity. From now on, instead of life time free charging, new Tesla owners will get an annual allowance of 400 kWh, which will propel the vehicle about 1,000 miles, before having to pay. How much will you pay? In Washington State, 11¢ per kWh. You can also be charged a fee for sitting at a charger and not charging, even if you haven't used your allowance. No, you don't get to roll your

¹ Not to be confused with the Lord Mayor of the City of London. The City of London is a one-square mile financial district headed by an appointed Lord Mayor. The Mayor of London is an elected official who is responsible for Greater London, which surrounds The City of London. We also find it interesting that unlike armor/armour, the English spell "Mayor" the same way we do.

kWh over to the next year if you don't use them. You can find more details on the new charger payment program at Tesla's [Supercharging](#) website.

A concern about electric vehicles is their dependency and impact on the power grid. Some are concerned that electric vehicles, if they take off, will put too much stress on the power grid. And, vehicles can't stray too far from a power supply. There is a solution on the horizon: the Energy Independent Electric Vehicle (EIV). These vehicles use solar and wind power to charge batteries, if batteries are present, and to drive electric motors. The concept has been tested in round-the-world journeys by a solar-powered plane and a solar- and wind-powered boat. Apparently, there are solar-powered golf cars on sale now. We don't know where you might get one of these things, but we are given to understand that you can use the interwebs and find them. Where do you find out more about this development, you ask? We answer: there is a report at IDTechEx called [Energy Independent Electric Vehicles Land, Water, Air 2017-2037](#) (Harrop & Gonzalez, January 2017) for a mere \$4,975. Or you can just read the executive summary like we did.

ALTERNATIVE FUELS

[The Mayor of London](#) (November 30, 2016) showed off the city's first double-decker hydrogen bus back in November 2016 and announced the city would no longer buy pure diesel buses starting in 2018. London plans to bring on 20 hydrogen buses and use only zero emission buses in the central city.

Thirteen automakers, petroleum companies, utilities, gas products companies, and other industrial companies are investing €10 billion (\$10.7 billion) in hydrogen and forming a hydrogen council, [Automotive News Europe](#) (Lippert, January 18, 2017) announced. The automakers include Toyota, BMW, Daimler, Honda, and Hyundai, while the gas companies include Royal Dutch Shell and Total. The plan was announced at the World Economic Forum in Davos, Switzerland.

COMING TO A LOCATION NEAR YOU: The latest news on new charging stations which may or may not be somewhere close to you.

United States: Drivers on 1,500 miles of interstate highways in Utah, Wyoming, and Idaho will have charging stations thanks to a U. S. Department of Energy Grant, Pocatello, Idaho's, [KPVI](#) (Rocky Mountain Power, January 20, 2017) reports. Regional power provider Rocky Mountain Power received the \$4 million grant and plans to establish fast chargers every 100 miles along Interstates 15, 80, 70, and 84.

Visitors to Twin Falls Resort State Park in West Virginia will have a level 2 charger to charge at, the [Independent Herald](#) (January 17, 2017) heralded. The station is at the park lodge and is free to chargers.

Around the World: Three charging stations are coming to the Coromandel Peninsula on New Zealand's North Island, the [Waikato Times](#) (January 24, 2017) tells. The towns of Tairua, Whitianga, and Coromandel are getting chargers and will form the Coromandel EV Scenic Touring Route. The New Zealand government's Low Emissions

Vehicles Contestable Fund is providing NZ\$175,000 (\$127,050.97) while Powerco, Charge Net NZ, and the Thames Coromandel District Council are providing another NZ\$175,000 for the chargers.

OTHER TECHNOLOGY

You would think there would be a lot of other technology to write about. If you thought that, you were wrong.

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That'll do.